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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/446,691

12/27/1999

LINO DAINESI

695-110P

2754

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7590

05/04/2004

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EXAMINER

LEWIS, KIM M

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 05/04/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/446,691

Applicant(s)

DAINESE, LINO

Examiner

Kim M. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> . |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 2/10/04 has been received and made of record in application file wrapper. Claim 1 has been amended. Claims 10-15 have been added. Claims 1-15 are pending in the instant application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,328,447 ("Kapounek et al.").

As regards claim 1, Kapounek et al. disclose in Fig. 1B, a back protector which comprises an upper support (1B) and a lower support (1a), said upper and lower supports being adapted to conform to upper and lower regions of the back of a lower, said upper support being substantially vertically aligned with said lower support, said upper support and lower support being provided with means (3) for fixing them to the back of the user, each of said supports carrying a plurality of substantially rigid elements (5) fixed thereto, said lower support being hinged via belt (2) to said upper support.

As can be seen from Fig. 2, the rigid elements (5) comprise plates having a strengthening grid of ribs (10A and 10B) provided at one surface.

As regards claim 3, as can be seen from Fig. 4, the plates are connected together mechanically by hinge elements.

As regards claims 4 and 5, note underpad (18), which is an intermediate material layer when the device of Fig. 1B is placed on the user. Also, underpad (18) is a part of both the upper and lower supports.

As regards claim 6, the shoulder pads (1c) can be considered a brace.

As regards claim 7, the lower support includes belt (3).

As regard claim 8, the upper and lower supports in the embodiment of Fig. 1B, are hinged via strap (2). Kapounek et al. fail to teach that the hinging element is a pin. Absent a critical teaching and/or a showing of unexpected results derived from connecting the upper and lower supports via a pin, the examiner contends that one having ordinary skill in the art would have found it an obvious design choice to use any known connecting means to hinge the upper and lower supports. Furthermore, the examiner contends the invention of Kapounek et al. would perform equally well with a pin used as the hinging element.

As regards claims 9, Kapounek et al. fail to teach that the ribs intersect to form a honeycomb structure. Absent a critical teaching and/or a showing of unexpected results derived from constructing the ribs such that they intersect to form a honeycomb structure, the examiner contends that the shape/design of the intersections of the ribs is an obvious design choice, which does not patentably distinguish applicant's invention.

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The obvious design choice as it relates to the shape/design of the intersections of the ribs is further established in the absence of a function that relates to the particular honeycomb shape.

As regards claim 10, it is inherent the upper and lower supports are adapted to conform to a human spinal column. Also, note the figures.

As regards claim 11, the embodiment of Fig. 1B allows movement of the upper and lower support through hinging element (2).

As regards claim 12, note plates (5), which are hinged to one another in Fig. 4.

As regards claim 13, as can be read from the abstract the spine protector can flex in three dimensions. It also allows the spinal column to flex in three dimensions, laterally, anteriorly and posteriorly.

As regards claim 14, Kapounek et al. disclose the invention as claimed. More specifically, Kapounek et al. disclose a back protector (Fig. 1B) comprising an upper support (1C) and a lower support (1a), said upper support being substantially vertically aligned with said lower support, each of said supports including an anterior inner layer made of a soft material (note layers 7A and 7B) and an outer layer comprising a plurality of interconnecting plates (5), the inner surface of each plate, which faces the intermediate layer being provided with a plurality of ribs fixed thereto, said lower support being hinged via strap (2) to said upper support, and means for securing the back protector to the body of the user.

The applicant should note the foam is an expanded material.

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As regards claim 15, the plurality of interconnecting plates overlap and are flexibly connected with respect to each other (abstract).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim M. Lewis whose telephone number is 703.308.1191. The examiner can normally be reached on Mondays to Thursdays from 5:30 am to 4:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A. Bennett can be reached on 703.308.0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kim M. Lewis
Primary Examiner
Art Unit 3743

kml
May 2, 2004